Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

Draft

AIR QUALITY PERMIT

Issued under 401 KAR 52:020

Permittee Name:	**Western Kentucky Energy Corporation**
Mailing Address:	**P. O. Box 1518, Henderson, KY 42419-1518**
Source Name:	**Reid/Henderson Station**
Mailing Address:	**P. O. Box 1518, Henderson, KY 42419-1518**
Source Location:	**State Highway Junction 2096/2097, Sebree, KY 42455**
Permit Number:	**V-05-022**
Source A. I. #:	**4196**
Activity #:	**APE20040001**
Review Type:	**Title V/Synthetic Minor Operating**
Source ID #:	**21-233-00001**
ORIS Code:	1382 & 1383
Regional Office:	**Owensboro** **3032 Alvey Park Drive W., Ste 700** **Owensboro, KY 42303-2191** **(270)687-7304**
County:	**Webster**
Application Complete Date:	**April 2, 2005**
Issuance Date:	
Revision Date:	
Expiration Date:	

John S. Lyons, Director
Division for Air Quality

Revised 10/19/05

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Rev #	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
----	**Initial Issuance**	**E709**	**12/16/1996**	**3/9/2000**	
A/R	**Acid Rain**			**3/5/1999**	
A/R	**Acid Rain**			**3/5/1999**	
	Renewal	**APE2004001**			

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

The Division for Air Quality has determined that the Western Kentucky Energy Corporation-Reid/Henderson electrical generating station and the Western Kentucky Energy Corporation-R.D. Green electrical generating station are one source as defined in 401 KAR 50:020, Permits, and 401 KAR 51:017, Prevention of significant deterioration of air quality. This permit contains requirements for the Reid/Henderson station. Requirements for the R. D. Green station are contained in permit V-05-031.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 01 Indirect Heat Exchanger

Description:

Reid Station Unit 1 (R1)
Dry-bottom, wall-fired, pulverized coal-fired unit equipped with electrostatic precipitator and with over fired air (OFA)
Number two fuel-oil used for startup and stabilization
Secondary Fuel: petroleum coke
Maximum Continuous Rating: 834 mmBtu/hour
Construction commenced: 1963

Applicable Regulations:

401 KAR 61:015, Existing indirect heat exchangers applicable to an emission unit with a capacity of more than 250 mmBtu per hour and commenced before August 17, 1971.
Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect heat exchangers.
401 KAR 51:160, NO_x requirements for large utility and industrial boilers; incorporating by reference 40 CFR 96
401 KAR 52:060, Acid rain permits, incorporating by reference the Federal Acid Rain provisions as codified in 40 CFR Parts 72 to 78
40 CFR Part 64, Compliance Assurance Modeling (CAM)

1. **Operating Limitations:**
   None

2. **Emission Limitations:**

   a) Pursuant to 401 KAR 61:015, Section 4(4), and Regulation No. 7, particulate emissions shall not exceed 0.28 lb/mmBtu based on a three-hour average.

   b) Pursuant to 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed 40 percent opacity based on a six-minute average except that a maximum of 60 percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the firebox, or blowing soot.

   c) Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emission shall not exceed 5.2 lbs/mmBtu based on a twenty-four-hour average.

   d) See Section D.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

a) In accordance with subsection 4(b), the permittee shall submit a schedule within six months from the date of issuance of this permit to conduct testing within one year following the issuance of this permit to establish the correlation between opacity and particulate emissions. This testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.

b) If no additional stack tests are performed pursuant to subsection 4(b), the permittee shall conduct a performance test for particulate emissions by the start of the fourth year of this permit to demonstrate compliance with the applicable standard.

c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 weekly, or more frequently if requested by the Division.

4. Specific Monitoring Requirements:

a) Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding the startup, shut down, and once per hour exemption periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate:

(i) perform an inspection of the control equipment and make any necessary repairs based on the concurrent readout from the COM or;

(ii) determine opacity using Reference Method 9 if emissions are visible, inspect the COM, the control equipment, and make any necessary repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed on August 20, 2004, opacity shall be used as an indicator of particulate matter emissions in conjunction with a Reference Method 5 or 17. Pursuant to 40 CFR Part 64.4(c)(1), testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level, except during startup and shut down;

(i) if any six-minute average opacity (averaged over a period of three hours) value exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.

(ii) if five (5) percent or greater of COM data (data averaged over six-minute periods) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G(a)(17) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.

c) Pursuant to 401 KAR 61:005, Section 3 and 401 KAR 52:020, Section 10, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring sulfur dioxide emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with 401 KAR 61:005, Section 3, particularly, performance specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A. Pursuant to 40 CFR 64.3(d), the CEMS shall be used to satisfy CAM requirements.

d) Pursuant to 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.

e) Pursuant to 401 KAR 61:015, Section 6 (3) the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

f) Pursuant to Regulation 401 KAR 50:020, Section 10, to meet the periodic monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). If any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

g) Pursuant to 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

h) See Section D condition 3. [401 KAR 52:020 Section 10]

5. Specific Recordkeeping Requirements:

a) Records shall be kept in accordance with 401 KAR 61:005, Section 3(16) (f) and 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years. Percentage of the COM data (excluding startup, shutdown, and malfunction data) showing excursions above the opacity indicator level in each calendar quarter shall be computed and recorded.

b) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator level in each calendar quarter.

c) The permittee shall maintain the results of all compliance tests.

d) See Section D condition 3.

e) The permittee shall maintain the records of the following:
(i) the records of the fuel analysis;
(ii) the rate of fuel burned for each fuel on a daily basis;
(iii)the heating value and ash content on a weekly basis; and
(iv)the average electrical output and the minimum and maximum hourly generation rate on a daily basis.

6. Reporting Requirements:

a) Pursuant to 401 KAR 61:005, Section 3 (16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.

i. Owners or operators of facilities required to install continuous monitoring systems or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.

iii. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.

iv. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.

v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report. [401 KAR 61:005]

b) The permittee shall report the number of excursions (excluding startup, shutdown, malfunction data) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level in each calendar quarter.

c) See Section D.

7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator (ESP) shall be operated as necessary to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and/or good operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 02 Indirect Heat Exchanger

Description:

Henderson Station Unit 1 (H1)
Dry-bottom, wall-fired, pulverized coal-fired unit equipped with electrostatic precipitator(ESP), Low NOx burners (LNB), flue gas desulfurization (FGD) & selective catalytic reduction (SCR).
Number two fuel-oil used for startup and stabilization
Secondary Fuel: petroleum coke
Maximum Continuous Rating: 1,568 mmBtu/hour
Construction commenced: 1970

Applicable Regulations:

401 KAR 61:015, Existing indirect heat exchangers applicable to an emission unit with a capacity of more than 250 mmBtu per hour and commenced before August 17, 1971.
Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect heat exchangers.
401 KAR 51:160, NO_x requirements for large utility and industrial boilers; incorporating by reference 40 CFR 96
401 KAR 52:060, Acid rain permits, incorporating by reference the Federal Acid Rain provisions as codified in 40 CFR Parts 72 to 78
40 CFR Part 64, Compliance Assurance Modeling (CAM)

1. **Operating Limitations:**
   None

2. **Emission Limitations:**

   a) Pursuant to 401 KAR 61:015, Section 4(4), and Regulation No. 7, particulate emissions shall not exceed 0.21 lb/mmBtu based on a three-hour average.

   b) Pursuant to 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed 40 percent opacity based on a six-minute average except that a maximum of 60 percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the firebox, or blowing soot.

   c) Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emission shall not exceed 5.2 lbs/mmBtu based on a twenty-four-hour average.

   d) See Section D.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

a) In accordance with subsection 4(b), the permittee shall submit a schedule within six months from the issuance date of this permit to conduct testing within one year following the issuance of this permit to establish the correlation between opacity and particulate emissions. This testing shall be conducted in accordance with 401 KAR 50:045 Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.

b) If no additional stack tests are performed pursuant to subsection 4(b), the permittee shall conduct a performance test for particulate emissions by the start of the fourth year of this permit to demonstrate compliance with the allowable standard.

c) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 weekly, or more frequently if requested by the Division.

4. Specific Monitoring Requirements:

a) Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding the startup, shut down, and once per hour exemption periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate:

(i) perform an inspection of the control equipment and make any necessary repairs based on the concurrent readout from the COM or;

(ii) determine opacity using Reference Method 9 if visible emissions are seen, inspect the COM, the control equipment, and make any necessary repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed on August 20, 2004, opacity shall be used as an indicator of particulate matter emissions in conjunction with a Reference Method 5 or 17. Pursuant to 40 CFR Part 64.4(c)(1), testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level, except during startup and shut down;

(i) if any six-minute average opacity (averaged over a period of three hours) value exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.

(ii) if five (5) percent or greater of COM data (data averaged over six-minute periods) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G(a)(17) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.

c) Pursuant to 401 KAR 61:005, Section 3 and 401 KAR 52:020, Section 10, continuous emission monitoring systems (CEMS) shall be installed, calibrated, maintained, and operated for measuring sulfur dioxide emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with 401 KAR 61:005, Section 3, particularly, performance specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A. Pursuant to 40 CFR 64.3(d), the CEMS shall be used to satisfy CAM requirements.

d) Pursuant to 401 KAR 61:015, Section 6(1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.

e) Pursuant to 401 KAR 61:015, Section 6(3) the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

f) Pursuant to Regulation 401 KAR 50:020, Section 10, to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). If any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

g) Pursuant to 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

h) See Section D condition 3. [401 KAR 52:020 Section 10]

5. Specific Recordkeeping Requirements:

a) Records shall be kept in accordance with 401 KAR 61:005, Section 3(16) (f) and 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years. Percentage of the COM data (excluding startup, shutdown, and malfunction data) showing excursions above the opacity indicator level in each calendar quarter shall be computed and recorded.

b) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator level, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator level in each calendar quarter.

c) The permittee shall maintain the results of all compliance tests.

d) See Section D condition 3.

e) The permittee shall maintain the records of the following:
(i) the records of the fuel analysis;
(ii) the rate of fuel burned for each fuel on a daily basis;
(iii)the heating value and ash content on a weekly basis; and
(iv)the average electrical output and the minimum and maximum hourly generation rate on a daily basis.

6. Reporting Requirements:

a) Pursuant to 401 KAR 61:005, Section 3 (16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.

i. Owners or operators of facilities required to install continuous monitoring systems or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

ii. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.

iii. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.

iv. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.

v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report. [401 KAR 61:005]

b) The permittee shall report the number of excursions (excluding startup, shutdown, malfunction data) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level in each calendar quarter.

c) See Section D.

7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator (ESP), flue gas desulfurization unit (FGD), low NOx burner and selective catalytic reduction (SCR) system shall be operated as necessary to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and/or good operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 03 Indirect Heat Exchanger

Description:

Henderson Station Unit 2 (H2)
Dry-bottom, wall-fired, pulverized coal-fired unit equipped with electrostatic precipitator(ESP), Low NOx burners (LNB), flue gas desulfurization (FGD) & selective catalytic reduction (SCR).
Number two fuel-oil used for startup and stabilization
Secondary Fuel: petroleum coke
Maximum Continuous Rating: 1,568 mmBtu/hour
Construction commenced: 1970

Applicable Regulations:

401 KAR 61:015, Existing indirect heat exchangers applicable to an emission unit with a capacity of more than 250 mmBtu per hour and commenced before August 17, 1971.
Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect heat exchangers.
401 KAR 51:160, NO_x requirements for large utility and industrial boilers; incorporating by reference 40 CFR 96
401 KAR 52:060, Acid rain permits, incorporating by reference the Federal Acid Rain provisions as codified in 40 CFR Parts 72 to 78
40 CFR Part 64, Compliance Assurance Modeling (CAM)

1. **Operating Limitations:**
   None

2. **Emission Limitations:**

   a) Pursuant to 401 KAR 61:015, Section 4(4), and Regulation No. 7, particulate emissions shall not exceed 0.21 lb/mmBtu based on a three-hour average.

   b) Pursuant to 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed 40 percent opacity based on a six-minute average except that a maximum of 60 percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the firebox, or blowing soot.

   c) Pursuant to 401 KAR 61:015, Section 5(1), sulfur dioxide emission shall not exceed 5.2 lbs/mmBtu based on a twenty-four-hour average.

   d) See Section D.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

3. Testing Requirements:

a) In accordance with subsection 4(b), the permittee shall submit a schedule within six months from the date of issuance of this permit to conduct testing within one year following the issuance of this permit to establish the correlation between opacity and particulate emissions. This testing shall be conducted in accordance with 401 KAR 50:045, Performance Tests, and pursuant to 40 CFR 64.4(c)(1), the testing shall be conducted under conditions representative of maximum emissions potential under anticipated operating conditions at the pollutant-specific emissions unit.4.

b) If no additional stack tests are performed pursuant to subsection 4.(b), the permittee shall conduct one performance test for particulate emissions by the start of the fourth year of this permit to demonstrate compliance with the allowable standard.

c) Particulate testing required by subsections 3(a)and 3(b) above shall be waived if the permittee implements Specific Monitoring Requirement 4.(c), below.

d) The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 in accordance with 4(c,) below, if that monitoring strategy is implemented, or as requested by the Division.

4. Specific Monitoring Requirements:

a) Pursuant to 401 KAR 61:005, Section 3, Performance Specification 1 of 40 CFR 60, Appendix B, and 401 KAR 52:020, Section 10, a continuous opacity monitoring (COM) system shall conform to requirements of these sections which include installing, calibrating, operating, and maintaining the continuous monitoring system for accurate opacity measurement. Excluding the startup, shut down, and once per hour exemption periods, if any six-minute average opacity value exceeds the opacity standard, the permittee shall, as appropriate:

(i) perform an inspection of the control equipment and make any necessary repairs based on the concurrent readout from the COM or;

(ii) determine opacity using Reference Method 9 if visible emissions are seen, inspect the COM, the control equipment, and make any necessary repairs. If a Method 9 cannot be performed, the reason for not performing the test shall be documented.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

b) Pursuant to 401 KAR 52:020, Section 10, to meet the monitoring requirement for particulate matter, the permittee shall use a COM. Pursuant to 40 CFR 64.4(a)(1) and the CAM plan filed on August 20, 2004, opacity shall be used as an indicator of particulate matter emissions in conjunction with a Reference Method 5 or 17. Pursuant to 40 CFR Part 64.4(c)(1), testing shall be conducted to establish the level of opacity that will be used as an indicator of particulate matter emissions. The opacity indicator level shall be established at a level that provides reasonable assurance that particulate matter emissions are in compliance when opacity is equal to or less than the indicator level, except during startup and shut down;

(i) if any six-minute average opacity (averaged over a period of three hours) value exceeds the opacity indicator level, the permittee shall, as appropriate, initiate an inspection of the control equipment and/or the COM system and make any necessary repairs.

(ii) if five (5) percent or greater of COM data (data averaged over six-minute periods) recorded in a calendar quarter show excursions above the opacity indicator level, the permittee shall perform a stack test in the following calendar quarter to demonstrate compliance with the particulate standard while operating at representative conditions. The permittee shall submit a compliance test protocol as required by Section G(a)(17) of this permit before conducting the test. The Division may waive this testing requirement upon a demonstration that the cause(s) of the excursions have been corrected, or may require stack tests at any time pursuant to 401 KAR 50:045, Performance Tests.

c) Pursuant to 401 KAR 52:020, Section 10, as an alternative to monitoring strategies(a) and (b), above, to meet the compliance assurance monitoring requirement of 40 CFR 64.4(a)(1) and demonstrate continuing compliance with the particulate matter standard, the permittee shall use a particulate matter continuous emissions monitor (PM CEM). The PM CEM shall comply with Performance Specification 11 of Appendix B to 40 CFR 60 and ongoing quality assurance requirements per 40 CFR 60 Appendix F, Procedure 2. Opacity monitoring required in subsection (a) above excluding subparagraphs (i) and (ii) shall only be used to indicate proper operation of the ESP. Compliance with the opacity standard shall be by Reference Method 9 performed weekly. If a Method 9 cannot be performed the reason for not performing the test shall be documented.

d) Pursuant to 401 KAR 61:005, Section 3 and material incorporated by reference in 401 KAR 52:020, Section 10, continuous emission monitoring (CEM) systems shall be installed, calibrated, maintained, and operated for measuring sulfur dioxide emissions and either oxygen or carbon dioxide emissions. The continuous emission monitoring systems shall comply with 401 KAR 61:005, Section 3, particularly, Performance Specification 2 of Appendix B to 40 CFR 60 or 40 CFR 75, Appendix A. Pursuant to 40 CFR 64.3(d), the CEMS shall be used to satisfy CAM requirements.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

e) Pursuant to 401 KAR 61:015, Section 6(1), the sulfur content of solid fuels, as burned shall be determined in accordance with methods specified by the Division.

f) Pursuant to 401 KAR 61:015, Section 6(3) the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

g) Pursuant to Regulation 401 KAR 50:020, Section 10, to meet the monitoring requirement for sulfur dioxide, the permittee shall use a continuous emission monitor (CEM). If any 24-hour average sulfur dioxide value exceeds the standard, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and/or the CEM system and make any necessary repairs or take corrective actions as soon as practicable.

h) Pursuant to 401 KAR 61:005, Section 3(5), the division may provide a temporary exemption from the monitoring and reporting requirements of Regulation 401 KAR 61:005, Section 3, for the continuous monitoring system during any period of monitoring system malfunction, provided that the source owner or operator shows, to the Division's satisfaction, that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

i) See Section D condition 3. [401 KAR 52:020 Section 10]

5. <u>Specific Recordkeeping Requirements</u>:

a) Records shall be kept in accordance with 401 KAR 61:005, Section 3(16) (f) and 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years. Percentage of the COM data (excluding startup, shutdown, and malfunction data) showing excursions above the opacity indicator level in each calendar quarter shall be computed and recorded.

b) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator level in each calendar quarter.

c) The permittee shall maintain the records of the following:
(i) the records of the fuel analysis;
(ii) the rate of fuel burned for each fuel on a daily basis;
(iii)the heating value and ash content on a weekly basis; and
(iv)the average electrical output and the minimum and maximum hourly generation rate on a daily basis.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

d) The permittee shall maintain the results of all compliance tests.

e) See Section D condition 3.

f) The permittee shall maintain a daily operations check sheet to verify proper operation of the ESP. During periods when the opacity monitor is out of service, the check sheet shall be completed on an hourly basis.

For particulate and opacity by alternate operating scenario using PM CEMS,

g) The permittee shall maintain records of the PM CEM data on a three-hour rolling average basis, the number of excursions above the particulate emission standard, time and date of the excursions, and particulate emission value (lbs/mmBtu) of the excursions in each calendar quarter.

6. Reporting Requirements:

a) Pursuant to 401 KAR 61:005, Section 3 (16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.

i. Owners or operators of facilities required to install continuous monitoring systems or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature and cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

ii. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.

iii. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.

iv. For particulate measurements the summary shall consist of rolling three hour averages in the units of the applicable standard.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

iv. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the division whenever system repairs or adjustments have been made.

v. When no excess emissions have occurred and the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report. [401 KAR 61:005]

b) The permittee shall report the number of excursions (excluding startup, shutdown, malfunction data) above the opacity indicator level, date and time of excursions, opacity value of the excursions, and percentage of the COM data showing excursions above the opacity indicator level in each calendar quarter if the PM CEM is not utilized as the particulate compliance monitoring method

c) See Section D.

7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator (ESP), flue gas desulfurization unit (FGD), low NOx burner and selective catalytic reduction (SCR) system shall be operated as necessary to maintain compliance with permitted emission limitations, consistent with manufacturer's specifications and/or good operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained.

c) See Section E for further requirements.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 04 Coal Handling Operations

Description:

Equipment includes: Receiving hopper, barge unloading, feeders, magnetic separator, conveyors, secondary crusher, coal stockpiles, and haul roads
Control equipment: Enclosures, telescopic chutes, water spray
Operating rate: 800 tons/hour
Construction commenced: 1963

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. **Operating Limitations:**
None

2. **Emission Limitations:**

a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts;

2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling;

b) Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

Compliance Demonstration: Observations and records, if applicable, shall be utilized to demonstrate failure to comply. Otherwise, compliance is assumed when daily observations indicate that the processes and controls are operating normally.

3. **Testing Requirements:**
None

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements:

The permittee shall monitor the amount of coal received and processed. [401 KAR 52:020 Section 10]

5. Specific Record Keeping Requirements:

The permittee shall maintain the records of amount of coal received and processed. [401 KAR 52:020 Section 10]

6. Specific Reporting Requirements:

See Sections F

7. Specific Control Equipment Operating Conditions:

a) The enclosures, water spray, compaction, and telescopic chutes shall be operated as necessary to maintain compliance with with permitted emission limitations in accordance with manufacturer's specifications and/ or standard operating practices.

b) Records regarding the maintenance of the control equipment shall be maintained. [401 KAR 50:055]

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 05 (H12 & H13) Cooling Towers (Two identical units)

Description:

Operating rate: 5.1 million gallons of cooling water per hour per unit

Applicable Regulations:

401 KAR 63:010, Fugitive emissions is applicable to each affected facility which emits or may emit fugitive emissions and is not elsewhere subject to an opacity standard within the administrative regulations of the Division for Air Quality.

1. Operating Limitations:

None

4. Emission Limitations:

a) Pursuant to 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

1. Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces, which can create airborne dusts;

2. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling;

b) Pursuant to 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

Compliance Demonstration: Observations and records, if applicable, shall be utilized to demonstrate failure to comply. Otherwise, compliance is assumed when daily observations indicate that the processes and controls are operating normally.

5. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor the cooling water usage rate. [401 KAR 52:020 Section 10]

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Record Keeping Requirements:

The permittee shall maintain records of the amount of cooling water usage. [401 KAR 52:020 Section 10]

6. Specific Reporting Requirements:

See Section F

7. Specific Control Equipment Operating Conditions:

NA

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit 06 Combustion Turbine

Description:
Natural-gas/Number two fuel-oil fired unit
Rated Capacity: 803 mmBtu/hour
Construction commenced: 1970

Applicable Regulations:
There are no applicable requirements to this unit other than the general applicable requirements. [401 KAR 52:020]

1. **Operating Limitations:**
   None

2. **Emission Limitations:**
   None

3. **Testing Requirements:**
   None

4. **Specific Monitoring Requirements:**
   The permittee shall monitor fuel usage and hours of operation. [401 KAR 52:020 Section 10]

5. **Specific Record Keeping Requirements:**
   The permittee shall maintain the record of fuel usage and hours of operation on a quarterly basis. [401 KAR 52:020 Section 10]

6. **Specific Reporting Requirements:**
   See Section F, Conditions 5, 6, 7 and 8.

7. **Specific Control Equipment Operating Conditions:**
   NA

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	Description	Generally Applicable Regulation
1.	Diesel fuel-oil tank (capacity 120 gallons)	NA
2.	Kerosene tank (capacity 295 gallons)	NA
3.	Kerosene tank	NA
4.	Ignition fuel-oil # 2 tank (capacity 23,000 gall.)	NA
5.	Fuel-oil # 2 tank (throughput 114,000 gall.), So.	NA
6.	Fuel-oil No. 2 tank (throughput 114,000 gall.), No.	NA
7.	Fly-ash silo	401 KAR 63:010
8.	Ignition fuel-oil No. 2 tank (capacity 23,000 gall.)	NA
9.	Black start diesel generator, emergency use only	NA
10.	Cooling tower water treatment operations	NA
11.	Closed cooling water system	NA
12.	Demineralizer process operation	NA
13.	Freeze protection operation for coal conveyors	NA
14.	Portable water treatment operations	NA
15.	Lime slaking operations	NA
16.	Thermal evaporation of boiler cleaning wastes	NA
17.	Fly ash pneumatic conveying and storage	401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.

2. Particulate, sulfur dioxide and visible (opacity) emissions, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.

3. Electrical Generating Units 01 and 02 at the R. D. Green Station and Units 01, 02 and 03 at the Reid/Henderson Station.

a) In order to preclude applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, total emissions of sulfur dioxide from Emissions Units 01 and 02 at the R. D. Green Station and Emissions Units 01, 02 and 03 at the Reid/Henderson Station shall not exceed 20,846 tons during any consecutive twelve (12) month period in which any amount of petroleum coke is burnt.

b) The permittee shall use the sulfur dioxide continuous emission monitoring system (CEMs) to determine the monthly and twelve consecutive month emissions from the electrical generating units.

c) The permittee shall calculate and record the total sulfur dioxide emissions from all the electrical generating units referenced above on a monthly and twelve consecutive month basis.

d) The permittee shall maintain records of the dates on which any petcoke is burned and the monthly and annual quantities.

e) The permittee shall submit a report of sulfur dioxide emissions for the previous twelve consecutive month period every six months in accordance with Section F.5. Exceedances of the emission limitation specified above shall be reported within 30 days following the date when the exceedance is determined.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
    a. Date, place as defined in this permit, and time of sampling or measurements;
    b. Analyses performance dates;
    c. Company or entity that performed analyses;
    d. Analytical techniques or methods used;
    e. Analyses results; and
    f. Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
    a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
    b. To access and copy any records required by the permit:
    c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

    Reasonable times are defined as during all hours of operation, during normal office hours: or during an emergency.

4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V)1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.

7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
    a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
    b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.

8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within 30 days. Other deviations from permit requirements shall be included in the semiannual report required by Section F.6 [Section 1b (V) 3, 4. of the Cabinet Provisions and Procedures for Issuing Title V Permits incorporated by reference in 401 KAR 52:020, Section 26].

9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
    a. Identification of the term or condition;
    b. Compliance status of each term or condition of the permit;
    c. Whether compliance was continuous or intermittent;
    d. The method used for determining the compliance status for the source, currently and over the reporting period.
    e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

e. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Owensboro Regional Office
3032 Alvey Park Drive
Suite 700
Owensboro, KY 42303

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.

11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.

SECTION G - GENERAL PROVISIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
   a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
   b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
   c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;
   d. If any additional applicable requirements of the Acid Rain Program become applicable to the source.

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].

11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.

13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].

14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].

15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
    a. Applicable requirements that are included and specifically identified in the permit and
    b. Non-applicable requirements expressly identified in this permit.

17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].

2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements
None

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

2. The source shall comply with all requirements and conditions of the Title IV, Acid Rain Permits (A-98-008 and A-98-009) issued for this source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
   a. An emergency occurred and the permittee can identify the cause of the emergency;
   b. The permitted facility was at the time being properly operated;
   c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
   d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
   e. This requirement does not relieve the source of other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

   RMP Reporting Center
   P.O. Box 1515
   Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
   d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

N/A

SECTION I - COMPLIANCE SCHEDULE

N/A

SECTION J - ACID RAIN

ACID RAIN PERMIT CONTENTS

1) Statement of Basis

2) SO_2 allowances allocated under this permit and NOx requirements for each affected unit.

3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application, the Phase II NO_x Compliance Plan, and the Phase II NO_x Averaging Plan.

5) Summary of Actions

- **Statement of Basis:**

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Environmental and Public Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 52:020, Permits, 401 KAR 52:060, Acid Rain Permit, and 40 CFR Part 76. [401 KAR 52:060]

SECTION J - ACID RAIN (CONTINUED)

PERMIT (Conditions)

Plant Name: Robert Reid Station
Affected Unit: R1 (Emissions Unit-01)

- **SO_2 Allowance Allocations and NO_x Requirements for the affected unit:**

SO_2 Allowances	**Year**				
	2006	2007	2008	2009	2010
Tables 2, 3 or 4 of 40 CFR Part 73	942*	942*	942*	942*	944*

NO_x Requirements	
NO_x Limits	Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_X emissions averaging plan for this unit. This plan is effective for calendar year 2005 through 2009. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NOx emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.90 lb/mmBtu. In addition, this unit shall not have an annual heat input greater than 3,750,000 mmBtu. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

SECTION J - ACID RAIN (CONTINUED)

PERMIT (Conditions)

Plant Name: HMP&L Station 2
Affected Unit: H1 (Emissions Unit-02)

- **SO_2 Allowance Allocations and NO_x Requirements for the affected unit:**

SO_2 Allowances	**Year**				
	2006	2007	2008	2009	2010
Tables 2, 3 or 4 of 40 CFR Part 73	5,756*	5,756*	5,756*	5,756*	5,769*

NO_x Requirements	
NO_x Limits	Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_X emissions averaging plan for this unit. This plan is effective for calendar year 2005 through 2009. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NOx emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.50 lb/mmBtu. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

SECTION J - ACID RAIN (CONTINUED)

PERMIT (Conditions)

Plant Name: HMP&L Station 2
Affected Unit: H2 (Emissions Unit-03)

- **SO_2 Allowance Allocations and NO_x Requirements for the affected unit:**

SO_2 Allowances	**Year**				
	2006	2007	2008	2009	2010
Tables 2, 3 or 4 of 40 CFR Part 73	5,934*	5,934*	5,934*	5,934*	5,946*

NO_x Requirements	
NO_x Limits	Pursuant to 40 CFR Part 76, the Kentucky Division for Air Quality approves the NO_X emissions averaging plan for this unit. This plan is effective for calendar year 2005 through 2009. Under this plan, determined in accordance with 40 CFR Part 75, this unit's NOx emissions shall not exceed the annual average alternative contemporaneous emissions limitation (ACEL) of 0.50 lb/mmBtu. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and requirements covering excess emissions.

* The number of allowances allocated to Phase II affected units by the U.S. EPA may change under 40 CFR part 73. In addition, the number of allowances actually held by an affected source in a unit account may differ from the number allocated by U. S. EPA. Neither of the aforementioned conditions necessitate a revision to the unit SO_2 allowance allocations identified in this permit (See 40 CFR 72.84).

ACID RAIN PERMIT CONTENTS (CONTINUED)

- **Comments, Notes, and Justifications:**

Affected units are Emissions Unit-01, Emissions Unit-02 and Emissions Unit-03.

The Emissions Unit-01, Emissions Unit-02 and Emissions Unit-03 currently have SO2 allowances allocated by U.S. EPA.

The Emissions Unit-01, Emissions Unit-02 and Emissions Unit-03 have applicable NOx limits set by 40 CFR part 76. [401 KAR 52:060]

- **Permit Application:**

The Phase II Permit Application, the Phase II NOx Compliance Plan, and the Phase II NOx Averaging Plan are all part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application, the Phase II NOx Compliance Plan, and the Phase II NOx Averaging Plan. [401 KAR 52:060]

- **Summary of Actions:**

Previous Actions:

i. Draft Phase II Permits (# AR-96-03 & #AR-96-20) including SO2 compliance were issued for public comments on September 19, 1996.

ii. Final Phase II Permits (#AR-96-03 & #AR-96-20) including SO2 compliance plan were issued on February 21, 1997.

iii. Draft Phase II Permits (# A-98-008 & #A-98-009) were issued with the 1998 revised SO2 allowance allocations and NOx emissions standard for public comment on November 23, 1998.

iv. Final Phase II Permits (# A-98-008 & #A-98-009) were issued with the 1998 revised SO2 allowance allocations and NOx emissions standard on March 5, 1999.

v. Final Phase II Permits (# A-98-008 & #A-98-009) that have been issued with the 1998 revised SO2 allowance allocations and NOx emissions standard shall become null and void when Proposed Permit Number V-05-022 is issued.

Present Action:

1.Draft Title V with Section F Acid Rain Permit is being advertised for public comment. [401 KAR 52:060]

SECTION K – NOx BUDGET

Statement of Basis

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Environmental and Public Protection Cabinet issues this permit pursuant to 401 KAR 52:020 Title V permits, 401 KAR 51:160, NOx requirements for large utility and industrial boilers, and 40 CFR 97, Subpart C.

NOx Budget Permit Application, Form DEP 7007EE

The NOx Budget Permit application for these electrical generating units was submitted to the Division and received on June 16, 2003. Requirements contained in that application are hereby incorporated into and made part of this NOx Budget Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

Affected units are one (1) dry bottom wall fired boiler rated 834 mmBtu/hour and, two (2) dry bottom wall fired fired boilers each rated 1568 mmBtu/hour. Each unit has a capacity to generate 25 megawatts or more of electricity, which is offered for sale. The units use coal, and pet coke as a fuel source, and are used as base load electric generating units.

Summary of Actions

The NOx Budget Permit is being issued as part of the renewal Title V permit for this source. Public, affected state, and U.S. EPA review will follow procedures specified in 401 KAR 52:100. [401 KAR 51:160]